LISTING OF CLAIMS

1 – 36 (canceled)

37. (canceled)

38. (canceled)

39. (canceled)

40. (canceled)

41. (canceled)

42. (canceled)

43. (canceled)

44. (canceled)

45. (canceled)

46. (canceled)

47. (canceled)

48. (canceled)

49. (canceled)

50. (canceled)

51. (canceled)

52. (canceled)

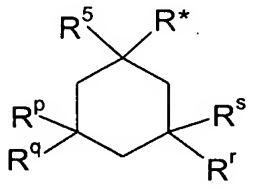
53. (canceled)

54. (canceled)

55. (canceled)

56. (canceled)

57. (currently amended) A pharmaceutical composition ~~for treatment of a dementia associated with a CNS disorder~~ comprising (i) an 1-aminocyclohexane derivative selected from those of general formula (I):



(I)

wherein:

- R^* is $-(A)_n-(CR^1R^2)_m-NR^3R^4$,

n+m = 0, 1, or 2,

A is selected from the group consisting of linear or branched lower alkyl (C_1-C_6),linear or branched lower alkenyl (C_2-C_6), and linear or branched lower alkynyl (C_2-C_6),

R^1 and R^2 are independently selected from the group consisting of hydrogen, linear or branched lower alkyl (C_1-C_6), linear or branched lower alkenyl (C_2-C_6), linear or branched lower alkynyl (C_2-C_6), aryl, and arylalkyl,

R^3 and R^4 are independently selected from the group consisting of hydrogen, linear or branched lower alkyl (C_1-C_6), linear or branched lower alkenyl (C_2-C_6), and linear or branched lower alkynyl (C_2-C_6), or together form alkylene (C_2-C_{10}) or alkenylene (C_2-C_{10}) or together with the N form a 3-7-membered azacycloalkane or azacycloalkene;

- R^5 is independently selected from the group consisting of hydrogen, linear or branched lower alkyl (C_1-C_6), linear or branched lower alkenyl (C_2-C_6), and linear or branched lower alkynyl (C_2-C_6), or R^5 combines with the carbon to which it is attached and the next adjacent ring carbon to form a double bond;

- R^p, R^q, R^r, and R^s, are independently selected from the group consisting of hydrogen, linear or branched lower alkyl (C_1-C_6), linear or branched lower alkenyl (C_2-C_6), linear or branched lower alkynyl (C_2-C_6), cycloalkyl (C_3-C_6) and aryl, and arylalkyl or R^p, R^q, R^r, and R^s independently may combine with the carbon atom to which it is attached and an adjacent carbon atom to form a double bond;

and optical isomers, diastereomers, polymorphs, enantiomers, hydrates, pharmaceutically acceptable salts, and mixtures thereof, (ii) an acetylcholinesterase inhibitor (AChEI) selected from galantamine, tacrine, donepezil, rivastigmine, huperzine A, zanapezil, ganstigmine, phenserine, phenethylnorcymserine (PENC), cymserine, thiacymserine, SPH 1371 (galantamine plus), ER 127528, RS 1259, and F3796, and, optionally, (iii) a pharmaceutically acceptable

carrier or excipient, wherein the 1-aminocyclohexane derivative and acetylcholinesterase inhibitor (AChEI) are present at therapeutically effective dosages.

58. (previously presented) The pharmaceutical composition of Claim 57, wherein said dosages for each of the 1-aminocyclohexane derivative and the acetylcholinesterase inhibitor (AChEI) are in the range of 1 to 200 mg.

59. (previously presented) The pharmaceutical composition of Claim 58, wherein said dosages for the 1-aminocyclohexane derivative are in the range of 10 to 40 mg and said dosages for the acetylcholinesterase inhibitor (AChEI) are in the range of 5 to 24 mg.

60. (canceled)

61. (canceled)

62. (canceled)

63. (canceled)

64. (canceled)

65. (canceled)

66. (canceled)

67. (currently amended) The pharmaceutical composition of Claim 57, wherein the 1-aminocyclohexane derivative is ~~an 1-aminoalkylcyclohexane derivative~~ selected from the group consisting of:

1-amino-1,3,5-trimethylcyclohexane,

1-amino-1(trans),3(trans),5-trimethylcyclohexane,

1-amino-1(cis),3(cis),5-trimethylcyclohexane,

1-amino-1,3,3,5-tetramethylcyclohexane,

1-amino-1,3,3,5,5-pentamethylcyclohexane (neramexane),

1-amino-1,3,5,5-tetramethyl-3-ethylcyclohexane,

1-amino-1,5,5-trimethyl-3,3-diethylcyclohexane,

1-amino-1,5,5-trimethyl-cis-3-ethylcyclohexane,

1-amino-(1S,5S)cis-3-ethyl-1,5,5-trimethylcyclohexane,

1-amino-1,5,5-trimethyl-trans-3-ethylcyclohexane,

1-amino-(1R,5S)trans-3-ethyl-1,5,5-trimethylcyclohexane,

1-amino-1-ethyl-3,3,5,5-tetramethylcyclohexane,

1-amino-1-propyl-3,3,5,5-tetramethylcyclohexane,

N-methyl-1-amino-1,3,3,5,5-pentamethylcyclohexane,

N-ethyl-1-amino-1,3,3,5,5-pentamethyl-cyclohexane,

N-(1,3,3,5,5-pentamethylcyclohexyl) pyrrolidine,

3,3,5,5-tetramethylcyclohexylmethylamine,

1-amino-l-propyl-3,3,5,5-tetramethylcyclohexane,

1 amino-1,3,3,5(trans)-tetramethylcyclohexane (axial amino group),

3-propyl-1,3,5,5-tetramethylcyclohexylamine semihydrate,

1-amino-1,3,5,5-tetramethyl-3-ethylcyclohexane,

1-amino-1,3,5-trimethylcyclohexane,

1-amino-1,3-dimethyl-3-propylcyclohexane,

1-amino-1,3(trans),5(trans)-trimethyl-3(cis)-propylcyclohexane,

1-amino-1,3-dimethyl-3-ethylcyclohexane,

1-amino-1,3,3-trimethylcyclohexane,

cis-3-ethyl-1(trans)-3(trans)-5-trimethylcyclohexamine,

1-amino-1,3(trans)-dimethylcyclohexane,

1,3,3-trimethyl-5,5-dipropylcyclohexylamine,

1-amino-1-methyl-3(trans)-propylcyclohexane,

1-methyl-3(cis)-propylcyclohexylamine,

1-amino-1-methyl-3(trans)-ethylcyclohexane,

1-amino-1,3,3-trimethyl-5(cis)-ethylcyclohexane,

1-amino-1,3,3-trimethyl-5(trans)-ethylcyclohexane,

cis-3-propyl-1,5,5-trimethylcyclohexylamine,

trans-3-propyl-1,5,5-trimethylcyclohexylamine,

N-ethyl-1,3,3,5,5-pentamethylcyclohexylamine,

N-methyl-l-amino-1,3,3,5.5-pentamethylcyclohexane,

1-amino-l-methylcyclohexane,

N,N-dimethyl-1-amino-1,3,3,5,5-pentamethylcyclohexane,

2-(3,3,5,5-tetramethylcyclohexyl)ethylamine,

2-methyl-l-(3,3,5,5-tetramethylcyclohexyl)propyl-2-amine,

2-(1,3,3,5,5-pentamethylcyclohexyl-l)-ethylamine semihydrate,

N-(1,3,3,5,5-pentamethylcyclohexyl)-pyrrolidine,

1-amino-1,3(trans),5(trans)-trimethylcyclohexane,

1-amino-1,3(cis),5(cis)-trimethylcyclohexane,

1-amino-(1R,SS)trans-5-ethyl-1,3,3-trimethylcyclohexane,

1-amino-(1S,SS)cis-5-ethyl-1,3,3-trimethylcyclohexane,

1-amino-1,5, 5-trimethyl-3(cis)-isopropyl-cyclohexane,
1-amino-1,5,5-trimethyl-3(trans)-isopropyl-cyclohexane,
1-amino-1-methyl-3(cis)-ethyl-cyclohexane,
1-amino-1-methyl-3(cis)-methyl-cyclohexane,
1-amino-5,5-diethyl-1,3,3-trimethyl-cyclohexane,
1-amino-1,3,3,5,5-pentamethylcyclohexane,
1-amino-1,5,5-trimethyl-3,3-diethylcyclohexane,
1-amino-l-ethyl-3,3,5,5-tetramethylcyclohexane,
N-ethyl-l-amino-1,3,3,5,5-pentamethylcyclohexane,
N-(1,3,5-trimethylcyclohexyl)pyrrolidine or piperidine,
N-[1,3(trans),5(trans)-trimethylcyclohexyl]pyrrolidine or piperidine,
N-[1,3(cis),5(cis)-trimethylcyclohexyl]pyrrolidine or piperidine,
N-(1,3,3,5-tetramethylcyclohexyl)pyrrolidine or piperidine,
N-(1,3,3,5,5-pentamethylcyclohexyl)pyrrolidine or piperidine,
N-(1,3,5,5-tetramethyl-3-ethylcyclohexyl)pyrrolidine or piperidine,
N-(1,5,5-trimethyl-3,3-diethylcyclohexyl)pyrrolidine or piperidine,
N-(1,3,3-trimethyl-cis-5-ethylcyclohexyl)pyrrolidine or piperidine,
N-[(1S,SS)cis-5-ethyl-1,3,3-trimethylcyclohexyl]pyrrolidine or piperidine,
N-(1,3,3-trimethyl-trans-5-ethylcyclohexyl)pyrrolidine or piperidine,
N-[(1R,SS)trans-5-ethyl,3,3-trimethylcyclohexyl]pyrrolidine or piperidine,
N-(1-ethyl-3,3,5,5-tetramethylyclohexyl)pyrrolidine or piperidine,
N-(1-propyl-3,3,5,5-tetramethylcyclohexyl)pyrrolidine or piperidine,
N-(1,3,3,5,5-pentamethylcyclohexyl)pyrrolidine,
and optical isomers, diastereomers, enantiomers, hydrates, pharmaceutically acceptable salts, and mixtures thereof.

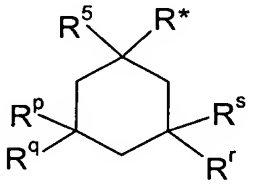
68. (currently amended) The pharmaceutical composition of Claim 57, wherein the 1-aminocyclohexane derivative is selected from the group consisting of neramexane and prodrugs, salts, isomers, and analogs ~~and derivatives~~ thereof.

69. (previously presented) The pharmaceutical composition of Claim 57, wherein the 1-aminocyclohexane derivative is neramexane.

70. (previously presented) The pharmaceutical composition of Claim 57, wherein the acetylcholinesterase inhibitor (AChEI) is selected from the group consisting of galantamine, tacrine, donepezil, and rivastigmine

71. (canceled)

72. (currently amended) A pharmaceutical dosage form ~~for treatment of dementia~~ comprising (i) an 1-aminocyclohexane derivative selected from those of general formula (I):



(I)

wherein:

- R^* is $-(A)_n-(CR^1R^2)_m-NR^3R^4$,

  n+m = 0, 1, or 2,

  A is selected from the group consisting of linear or branched lower alkyl (C_1-C_6),linear or branched lower alkenyl (C_2-C_6), and linear or branched lower alkynyl (C_2-C_6),

  R^1 and R^2 are independently selected from the group consisting of hydrogen, linear or branched lower alkyl (C_1-C_6), linear or branched lower

alkenyl (C_2-C_6), linear or branched lower alkynyl (C_2-C_6), aryl, and arylalkyl,

R^3 and R^4 are independently selected from the group consisting of hydrogen, linear or branched lower alkyl (C_1-C_6), linear or branched lower alkenyl (C_2-C_6), and linear or branched lower alkynyl (C_2-C_6), or together form alkylene (C_2-C_{10}) or alkenylene (C_2-C_{10}) or together with the N form a 3-7-membered azacycloalkane or azacycloalkene;

- R^5 is independently selected from the group consisting of hydrogen, linear or branched lower alkyl (C_1-C_6), linear or branched lower alkenyl (C_2-C_6), and linear or branched lower alkynyl (C_2-C_6), or R^5 combines with the carbon to which it is attached and the next adjacent ring carbon to form a double bond;

- R^p, R^q, R^r, and R^s, are independently selected from the group consisting of hydrogen, linear or branched lower alkyl (C_1-C_6), linear or branched lower alkenyl (C_2-C_6), linear or branched lower alkynyl (C_2-C_6), cycloalkyl (C_3-C_6), aryl, and arylalkyl or R^p, R^q, R^r, and R^s independently may combine with the carbon atom to which it is attached and an adjacent carbon atom to form a double bond;

and optical isomers, diastereomers, polymorphs, enantiomers, hydrates, pharmaceutically acceptable salts, and mixtures thereof, (ii) an acetylcholinesterase inhibitor (AChEI) selected from galantamine, tacrine, donepezil, rivastigmine, huperzine A, zanapezil, ganstigmine, phenserine, phenethylnorcymserine (PENC), cymserine, thiacymserine, SPH 1371 (galantamine plus), ER 127528, RS 1259, and F3796, and, optionally, (iii) a pharmaceutically acceptable carrier or excipient, wherein the 1-aminocyclohexane derivative and acetylcholinesterase inhibitor (AChEI) are present at therapeutically effective dosages.

73. (previously presented) The pharmaceutical dosage form of Claim 72, which is a solid dosage form for oral administration.

74. (previously presented) The solid dosage form of Claim 73, wherein the 1-aminocyclohexane derivative is present in an amount which is in the range of 10 to 40 mg and the acetylcholinesterase inhibitor (AChEI) is present in an amount which is in the range of 5 to 24 mg.